

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 101088176

CRF Processing Date: 4/11/02
 Edited by: DC
 Verified by: _____ (STIC staff)

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: **ENTERED**
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file;
☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form. 3/1/95



PCT10

RAW SEQUENCE LISTING

DATE: 04/11/2002

PATENT APPLICATION: US/10/088,676

TIME: 16:32:20

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

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5 <110> APPLICANT: Merck Patent GmbH
7 <120> TITLE OF INVENTION: Novel heparanase
9 <130> FILE REFERENCE: HSPnaseKDWS
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/088,676
C--> 12 <141> CURRENT FILING DATE: 2002-03-21
14 <160> NUMBER OF SEQ ID NOS: 15
16 <170> SOFTWARE: PatentIn Ver. 2.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 1779
20 <212> TYPE: DNA
21 <213> ORGANISM: Homo sapiens
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24 <221> NAME/KEY: CDS
25 <222> LOCATION: (1)..(1779)
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30 1 5 10 15
32 cgc ccc ccc gcg tgc cta gcc ccg ggg gct ctc tac ttg gct ctg ttg 96
33 Arg Pro Pro Ala Cys Leu Ala Pro Gly Ala Leu Tyr Leu Ala Leu Leu
34 20 25 30
36 ctc cat ctc tcc ctt tcc tcc cag gct gga gac agg aga ccc ttg cct 144
37 Leu His Leu Ser Leu Ser Ser Gln Ala Gly Asp Arg Arg Pro Leu Pro
38 35 40 45
40 gta gac aga gct gca ggt ttg aag gaa aag acc ctg att cta ctt gat 192
41 Val Asp Arg Ala Ala Gly Leu Lys Glu Lys Thr Leu Ile Leu Leu Asp
42 50 55 60
44 gtg agc acc aag aac cca gtc agg aca gtc aat gag aac ttc ctc tct 240
45 Val Ser Thr Lys Asn Pro Val Arg Thr Val Asn Glu Asn Phe Leu Ser
46 65 70 75 80
48 ctg cag ctg gat ccg tcc atc att cat gat ggc tgg ctc gat ttc cta 288
49 Leu Gln Leu Asp Pro Ser Ile Ile His Asp Gly Trp Leu Asp Phe Leu
50 85 90 95
52 agc tcc aag cgc ttg gtg acc ctg gcc ccg gga ctt tcg ccc gcc ttt 336
53 Ser Ser Lys Arg Leu Val Thr Leu Ala Arg Gly Leu Ser Pro Ala Phe
54 100 105 110
56 ctg cgc ttc ggg ggc aaa agg acc gac ttc ctg cag ttc cag aac ctg 384
57 Leu Arg Phe Gly Gly Lys Arg Thr Asp Phe Leu Gln Phe Gln Asn Leu
58 115 120 125
60 agg aac ccg gcg aaa agc cgc ggg ggc ccg ggc ccg gat tac tat ctc 432
61 Arg Asn Pro Ala Lys Ser Arg Gly Gly Pro Gly Pro Asp Tyr Tyr Leu
62 130 135 140
64 aaa aac tat gag gat gac att gtt cga agt gat gtt gcc tta gat aaa 480

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/088,676

DATE: 04/11/2002

TIME: 16:32:20

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

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65 Lys Asn Tyr Glu Asp Asp Ile Val Arg Ser Asp Val Ala Leu Asp Lys
66 145 150 155 160
68 cag aaa ggc tgc aag att gcc cag cac cct gat gtt atg ctg gtg ctc 528
69 Gln Lys Gly Cys Lys Ile Ala Gln His Pro Asp Val Met Leu Val Leu
70 165 170 175
72 caa agg gag aag gca gct cag atg cat ctg gtt ctt cta aag gag caa 576
73 Gln Arg Glu Lys Ala Ala Gln Met His Leu Val Leu Leu Lys Glu Gln
74 180 185 190
76 ttc tcc aat act tac agt aat ctc ata tta aca gcc agg tct cta gac 624
77 Phe Ser Asn Thr Tyr Ser Asn Leu Ile Leu Thr Ala Arg Ser Leu Asp
78 195 200 205
80 aaa ctt tat aac ttt gct gat tgc tct gga ctc cac ctg ata ttt gct 672
81 Lys Leu Tyr Asn Phe Ala Asp Cys Ser Gly Leu His Leu Ile Phe Ala
82 210 215 220
84 cta aat gca ctg cgt cgt aat ccc aat aac tcc tgg aac agt tct agt 720
85 Leu Asn Ala Leu Arg Arg Asn Pro Asn Asn Ser Trp Asn Ser Ser Ser
86 225 230 235 240
88 gcc ctg agt ctg ttg aag tac agc gcc agc aaa aag tac aac att tct 768
89 Ala Leu Ser Leu Leu Lys Tyr Ser Ala Ser Lys Lys Tyr Asn Ile Ser
90 245 250 255
92 tgg gaa ctg ggt aat gag cca aat aac tat cgg acc atg cat ggc cgg 816
93 Trp Glu Leu Gly Asn Glu Pro Asn Asn Tyr Arg Thr Met His Gly Arg
94 260 265 270
96 gca gta aat ggc agc cag ttg gga aag gat tac atc cag ctg aag agc 864
97 Ala Val Asn Gly Ser Gln Leu Gly Lys Asp Tyr Ile Gln Leu Lys Ser
98 275 280 285
100 ctg ttg cag ccc atc cgg att tat tcc aga gcc agc tta tat ggc cct 912
101 Leu Leu Gln Pro Ile Arg Ile Tyr Ser Arg Ala Ser Leu Tyr Gly Pro
102 290 295 300
104 aat att ggg cgg ccg agg aag aat gtc atc gcc ctc cta gat gga ttc 960
105 Asn Ile Gly Arg Pro Arg Lys Asn Val Ile Ala Leu Leu Asp Gly Phe
106 305 310 315 320
108 atg aag gtg gca gga agt aca gta gat gca gtt acc tgg caa cat tgc 1008
109 Met Lys Val Ala Gly Ser Thr Val Asp Ala Val Thr Trp Gln His Cys
110 325 330 335
112 tac att gat ggc cgg gtg gtc aag gtg atg gac ttc ctg aaa act cgc 1056
113 Tyr Ile Asp Gly Arg Val Val Lys Val Met Asp Phe Leu Lys Thr Arg
114 340 345 350
116 ctg tta gac aca ctc tct gac cag att agg aaa att cag aaa gtg gtt 1104
117 Leu Leu Asp Thr Leu Ser Asp Gln Ile Arg Lys Ile Gln Lys Val Val
118 355 360 365
120 aat aca tac act cca gga aag aag att tgg ctt gaa ggt gtg gtg acc 1152
121 Asn Thr Tyr Thr Pro Gly Lys Lys Ile Trp Leu Glu Gly Val Val Thr
122 370 375 380
124 acc tca gct gga ggc aca aac aat cta tcc gat tcc tat gct gca gga 1200
125 Thr Ser Ala Gly Gly Thr Asn Asn Leu Ser Asp Ser Tyr Ala Ala Gly
126 385 390 395 400
128 ttc tta tgg ttg aac act tta gga atg ctg gcc aat cag ggc att gat 1248
129 Phe Leu Trp Leu Asn Thr Leu Gly Met Leu Ala Asn Gln Gly Ile Asp

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/088,676

DATE: 04/11/2002

TIME: 16:32:20

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

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130          405          410          415
132 gtc gtg ata cgg cac tca ttt ttt gac cat gga tac aat cac ctc gtg 1296
133 Val Val Ile Arg His Ser Phe Phe Asp His Gly Tyr Asn His Leu Val
134          420          425          430
136 gac cag aat ttt aac cca tta cca gac tac tgg ctc tct ctc ctc tac 1344
137 Asp Gln Asn Phe Asn Pro Leu Pro Asp Tyr Trp Leu Ser Leu Leu Tyr
138          435          440          445
140 aag cgc ctg atc ggc ccc aaa gtc ttg gct gtg cat gtg gct ggg ctc 1392
141 Lys Arg Leu Ile Gly Pro Lys Val Leu Ala Val His Val Ala Gly Leu
142          450          455          460
144 cag cgg aag cca cgg cct ggc cga gtg atc cgg gac aaa cta agg att 1440
145 Gln Arg Lys Pro Arg Pro Gly Arg Val Ile Arg Asp Lys Leu Arg Ile
146 465          470          475          480
148 tat gct cac tgc aca aac cac cac aac cac aac tac gtt cgt ggg tcc 1488
149 Tyr Ala His Cys Thr Asn His His Asn His Asn Tyr Val Arg Gly Ser
150          485          490          495
152 att aca ctt ttt atc atc aac ttg cat cga tca aga aag aaa atc aag 1536
153 Ile Thr Leu Phe Ile Ile Asn Leu His Arg Ser Arg Lys Lys Ile Lys
154          500          505          510
156 ctg gct ggg act ctc aga gac aag ctg gtt cac cag tac ctg ctg cag 1584
157 Leu Ala Gly Thr Leu Arg Asp Lys Leu Val His Gln Tyr Leu Leu Gln
158          515          520          525
160 ccc tat ggg cag gag ggc cta aag tcc aag tca gtg caa ctg aat ggc 1632
161 Pro Tyr Gly Gln Glu Gly Leu Lys Ser Lys Ser Val Gln Leu Asn Gly
162          530          535          540
164 cag ccc tta gtg atg gtg gac gac ggg acc ctc cca gaa ttg aag ccc 1680
165 Gln Pro Leu Val Met Val Asp Asp Gly Thr Leu Pro Glu Leu Lys Pro
166 545          550          555          560
168 cgc ccc ctt cgg gcc ggc cgg aca ttg gtc atc cct cca gtc acc atg 1728
169 Arg Pro Leu Arg Ala Gly Arg Thr Leu Val Ile Pro Pro Val Thr Met
170          565          570          575
172 ggc ttt tat gtg gtc aag aat gtc aat gct ttg gcc tgc cgc tac cga 1776
173 Gly Phe Tyr Val Val Lys Asn Val Asn Ala Leu Ala Cys Arg Tyr Arg
174          580          585          590
176 taa 1779
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181 <211> LENGTH: 592
182 <212> TYPE: PRT
183 <213> ORGANISM: Homo sapiens
185 <400> SEQUENCE: 2
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187 1 5 10 15
188 Arg Pro Pro Ala Cys Leu Ala Pro Gly Ala Leu Tyr Leu Ala Leu Leu
189 20 25 30
190 Leu His Leu Ser Leu Ser Ser Gln Ala Gly Asp Arg Arg Pro Leu Pro
191 35 40 45
192 Val Asp Arg Ala Ala Gly Leu Lys Glu Lys Thr Leu Ile Leu Leu Asp
193 50 55 60
194 Val Ser Thr Lys Asn Pro Val Arg Thr Val Asn Glu Asn Phe Leu Ser

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/088,676

DATE: 04/11/2002

TIME: 16:32:20

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

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195 65          70          75          80
196 Leu Gln Leu Asp Pro Ser Ile Ile His Asp Gly Trp Leu Asp Phe Leu
197          85          90          95
198 Ser Ser Lys Arg Leu Val Thr Leu Ala Arg Gly Leu Ser Pro Ala Phe
199          100          105          110
200 Leu Arg Phe Gly Gly Lys Arg Thr Asp Phe Leu Gln Phe Gln Asn Leu
201          115          120          125
202 Arg Asn Pro Ala Lys Ser Arg Gly Gly Pro Gly Pro Asp Tyr Tyr Leu
203          130          135          140
204 Lys Asn Tyr Glu Asp Asp Ile Val Arg Ser Asp Val Ala Leu Asp Lys
205 145          150          155          160
206 Gln Lys Gly Cys Lys Ile Ala Gln His Pro Asp Val Met Leu Val Leu
207          165          170          175
208 Gln Arg Glu Lys Ala Ala Gln Met His Leu Val Leu Leu Lys Glu Gln
209          180          185          190
210 Phe Ser Asn Thr Tyr Ser Asn Leu Ile Leu Thr Ala Arg Ser Leu Asp
211          195          200          205
212 Lys Leu Tyr Asn Phe Ala Asp Cys Ser Gly Leu His Leu Ile Phe Ala
213          210          215          220
214 Leu Asn Ala Leu Arg Arg Asn Pro Asn Asn Ser Trp Asn Ser Ser Ser
215 225          230          235          240
216 Ala Leu Ser Leu Leu Lys Tyr Ser Ala Ser Lys Lys Tyr Asn Ile Ser
217          245          250          255
218 Trp Glu Leu Gly Asn Glu Pro Asn Asn Tyr Arg Thr Met His Gly Arg
219          260          265          270
220 Ala Val Asn Gly Ser Gln Leu Gly Lys Asp Tyr Ile Gln Leu Lys Ser
221          275          280          285
222 Leu Leu Gln Pro Ile Arg Ile Tyr Ser Arg Ala Ser Leu Tyr Gly Pro
223          290          295          300
224 Asn Ile Gly Arg Pro Arg Lys Asn Val Ile Ala Leu Leu Asp Gly Phe
225 305          310          315          320
226 Met Lys Val Ala Gly Ser Thr Val Asp Ala Val Thr Trp Gln His Cys
227          325          330          335
228 Tyr Ile Asp Gly Arg Val Val Lys Val Met Asp Phe Leu Lys Thr Arg
229          340          345          350
230 Leu Leu Asp Thr Leu Ser Asp Gln Ile Arg Lys Ile Gln Lys Val Val
231          355          360          365
232 Asn Thr Tyr Thr Pro Gly Lys Lys Ile Trp Leu Glu Gly Val Val Thr
233          370          375          380
234 Thr Ser Ala Gly Gly Thr Asn Asn Leu Ser Asp Ser Tyr Ala Ala Gly
235 385          390          395          400
236 Phe Leu Trp Leu Asn Thr Leu Gly Met Leu Ala Asn Gln Gly Ile Asp
237          405          410          415
238 Val Val Ile Arg His Ser Phe Phe Asp His Gly Tyr Asn His Leu Val
239          420          425          430
240 Asp Gln Asn Phe Asn Pro Leu Pro Asp Tyr Trp Leu Ser Leu Leu Tyr
241          435          440          445
242 Lys Arg Leu Ile Gly Pro Lys Val Leu Ala Val His Val Ala Gly Leu
243          450          455          460

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/088,676

DATE: 04/11/2002

TIME: 16:32:20

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

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244 Gln Arg Lys Pro Arg Pro Gly Arg Val Ile Arg Asp Lys Leu Arg Ile
245 465 470 475 480
246 Tyr Ala His Cys Thr Asn His His Asn His Asn Tyr Val Arg Gly Ser
247 485 490 495
248 Ile Thr Leu Phe Ile Ile Asn Leu His Arg Ser Arg Lys Lys Ile Lys
249 500 505 510
250 Leu Ala Gly Thr Leu Arg Asp Lys Leu Val His Gln Tyr Leu Leu Gln
251 515 520 525
252 Pro Tyr Gly Gln Glu Gly Leu Lys Ser Lys Ser Val Gln Leu Asn Gly
253 530 535 540
254 Gln Pro Leu Val Met Val Asp Asp Gly Thr Leu Pro Glu Leu Lys Pro
255 545 550 555 560
256 Arg Pro Leu Arg Ala Gly Arg Thr Leu Val Ile Pro Pro Val Thr Met
257 565 570 575
258 Gly Phe Tyr Val Val Lys Asn Val Asn Ala Leu Ala Cys Arg Tyr Arg
259 580 585 590
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264 <211> LENGTH: 20
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Description of Artificial Sequence: RT PCR Primer1
271 <400> SEQUENCE: 3
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275 <210> SEQ ID NO: 4
276 <211> LENGTH: 20
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Description of Artificial Sequence: RT PCR Primer2
283 <400> SEQUENCE: 4
284 tcacgacatc aatgccctga 20
287 <210> SEQ ID NO: 5
288 <211> LENGTH: 31
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Description of Artificial Sequence: Labeled probe1
295 <400> SEQUENCE: 5
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299 <210> SEQ ID NO: 6
300 <211> LENGTH: 20
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: Description of Artificial Sequence: PT PCR Primer3
307 <400> SEQUENCE: 6
308 attgccgaca ggaatgcagaa 20
311 <210> SEQ ID NO: 7

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/088,676

DATE: 04/11/2002

TIME: 16:32:21

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04112002\J088676.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date



Does Not Comply PCT10
Corrected Diskette Needed

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/088,676

DATE: 04/08/2002

TIME: 14:29:28

Input Set : A:\EP.txt

Output Set: N:\CRF3\04082002\J088676.raw

5 <110> APPLICANT: Merck Patent GmbH
 7 <120> TITLE OF INVENTION: Novel heparanase
 9 <130> FILE REFERENCE: HSPnaseKDWS
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/088,676
 C--> 12 <141> CURRENT FILING DATE: 2002-03-21
 14 <160> NUMBER OF SEQ ID NOS: 15
 16 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

413 <210> SEQ ID NO: 15
 414 <211> LENGTH: 14
 415 <212> TYPE: PRT
 416 <213> ORGANISM: Artificial Sequence
 418 <220> FEATURE:
 419 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide 3
 421 <400> SEQUENCE: 15
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 423 1 5 10
 E--> 428 1
 E--> 430 - 2 - - delete

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/088,676

DATE: 04/08/2002

TIME: 14:29:29

Input Set : A:\EP.txt

Output Set: N:\CRF3\04082002\J088676.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:428 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:15

M:332 Repeated in SeqNo=15